City of Sunnyvale

Ten Year Project Costs

by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Plan 2013-14	Plan 2014-15	Plan 2015-16	Ten Year Plan Total	**Project Grand Total**
Category:	**Infrastructure**														
Type:	**Street & Traffic Signals**														
820160	Mathilda Avenue Traffic Signal Controller Replacement														
		377,286	0	0	0	0	0	0	0	0	0	0	0	0	377,286
820180	Traffic Signal Controller Replacement														
		681,646	17,887	127,814	55,873	167,487	77,506	59,292	120,958	102,813	104,869	106,967	65,464	989,043	1,688,576
820190	Traffic Signal Underground Replacement														
		982,506	397,487	397,487	135,145	137,848	140,605	143,417	146,285	149,211	152,195	155,239	478,037	2,035,469	3,415,462
820200	Traffic Signal Light Emitting Diode Array Replacements														
		48,782	45,000	45,000	45,900	46,818	47,754	92,007	93,847	95,724	97,638	99,591	101,583	765,862	859,644
822710	Mathilda Avenue Railroad Overpass Improvements														
		768,681	16,731,319	0	0	0	0	0	0	0	0	0	0	0	17,500,000
825290	Pavement Rehabilitation														
		0	0	0	224,400	0	63,672	341,423	26,498	162,403	294,064	0	0	1,112,460	1,112,460
825550	Adaptive Traffic Signal Control Upgrade														
		0	175,000	0	0	0	0	0	0	0	0	0	0	0	175,000
825730	Pedestrian Lighted Crosswalk Maintenance														
		0	0	0	0	0	0	0	0	0	0	18,747	0	18,747	18,747
825740	Battery Backup System for Traffic Signals Maintenance														
		0	0	0	0	0	0	41,565	42,397	43,245	44,110	0	0	171,317	171,317
Total		2,858,901	17,366,693	570,301	461,318	352,153	329,537	677,704	429,985	553,396	692,876	380,544	645,084	5,092,898	25,318,492

Note: Projects with $0 Grand Total have budgets in the second ten years of the Twenty Year Plan.

Project Information Sheet

Project: 820160 Mathilda Avenue Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

This project provides for the replacement of specialized traffic signal controllers/coordination equipment which is installed only on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. These equipment are generally replaced on a 15 year schedule. Cost estimates are based on current market costs for replacement equipment. The project will fund the replacement of software, communication, and control equipment for 10 intersections. The next scheduled replacement is in FY 2019/20 and FY 2020/21 for an estimated total cost of approximately $964,000.

Service Level

This project will replace the traffic signal controllers/interconnect system on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. Without controller replacement, the traffic signals would not function, creating significant traffic problems and impacting Traffic Operations service levels.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	377,286	0	0	0	0	0	0	0	0	0	0	0	0	377,286
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	0	0	0	0	0	0	
Total	377,286	0	0	0	0	0	0	0	0	0	0	0	0	377,286
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820180 Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

This project improves traffic flow at intersections and increases the reliability of the City's signal control equipment. Traffic signal controllers are replaced at approximately 15-20 year intervals due to obsolescence or changes in functionality. The replacement costs vary depending on the location of the controllers. The replacement schedule is based on years of services, date of last upgrade, or as needed due to wear and tear. One controller replacement is planned in FY 2005/06 at Homestead/Heron; an additional 5 controller replacements are planned in FY 2006/07 at Reed/Sequoia, Kifer/Pedestrian, Mary/Dalles, Bernardo/Evelyn, and Arques/Oakmeade

Service Level

This project improves traffic flow at intersections and increases the reliability of the City's signal control equipment. Failure to replace traffic signal controllers will increase traffic congestion and impact Program 115-Transportation Operations service levels.

Issues

This project provides the replacement of traffic signal controllers throughout the City as they reach the end of their useful lives. These computer-based controllers deteriorate with time and replacement parts become difficult to find as the equipment is phased out of manufacture.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	681,646	17,887	127,814	55,873	167,487	77,506	59,292	120,958	102,813	104,869	106,967	65,464	989,043	1,688,576
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	127,814	55,873	167,487	77,506	59,292	120,958	102,813	104,869	106,967	65,464	989,043	
Total	681,646	17,887	127,814	55,873	167,487	77,506	59,292	120,958	102,813	104,869	106,967	65,464	989,043	1,688,576
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820190 Traffic Signal Underground Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

This project provides for the replacement of traffic signal underground conduits and structures at the end of their estimated life span. Underground cables and conduits have a life expectancy of 20 - 40 years with an average of 35 years.

Pending installations for FY 2005/2006 and FY 2006/2007 include Mary/Fremont, Fair Oaks/Kifer, Fair Oaks/Wolfe, Wolfe/Arques, and Sunnyvale-Saratoga/Fremont. The actual locations will be monitored and replaced as needed due to operational concerns. The funds budgeted in FY 2007/2008 onwards would provide the emergency replacement of approximately one location per year; the replacement rate is increased to two locations per year in the second 10 years of the 20 year plan. The longer term goal of initiating a 35 year replacement cycle for traffic signal underground conduit and conductors has been deferred at this time due to budget concerns. Cost estimates are based on the City's recent project experience.

Service Level

This project minimizes the inconvenience to the traveling public when underground signal facilities fail. Failure to replace traffic signal infrastructure will impact Program 115-Transportation Operations service levels.

Issues

This project provides the replacement of underground traffic signal conduit and conductors as they reach the end of their useful life. If not replaced, the repairs and downtime of traffic signals could be significantly increased. Life cycles vary from 20 – 40 years depending on the type of materials used. Many of our signals have now reached the end of the life cycle.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	982,506	397,487	397,487	135,145	137,848	140,605	143,417	146,285	149,211	152,195	155,239	478,037	2,035,469	3,415,462
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	397,487	135,145	137,848	140,605	143,417	146,285	149,211	152,195	155,239	478,037	2,035,469	
Total	982,506	397,487	397,487	135,145	137,848	140,605	143,417	146,285	149,211	152,195	155,239	478,037	2,035,469	3,415,462
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820200 Traffic Signal Light Emitting Diode Array Replacements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1997-98	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.3, 1.C3.4	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

This project funds the replacement of red, yellow, and green traffic signal light emitting diode arrays (LEDs) as they approach the end of their useful life. The LEDs are warranted for seven years. It is expected that 15% of the installed LEDs will need to be replaced annually. The LEDs result in a significant cost savings to the City in power consumption and annual replacement costs. In the past, incandescent lights were used for traffic signals. These lights were replaced every 1-2 years and consumed 10-15 times the electricity that LEDs do.

The cost estimates are based on current market prices for LED equipment. Funds budgeted in FY 2004/05 to FY 2009/10 are for the replacement of red LEDs. Starting in FY 2010/11, the funds budgeted are for the replacement of the red, yellow, and green LEDs and pedestrian crossing indicators. Cost savings from the installation of LEDs have been reflected in reductions to the Transportation Operations Program in the FY 2004/2005 Budget.

Service Level

This project will replace the Light Emitting Diode lights used for traffic signals.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	48,782	45,000	45,000	45,900	46,818	47,754	92,007	93,847	95,724	97,638	99,591	101,583	765,862	859,644
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	45,000	45,900	46,818	47,754	92,007	93,847	95,724	97,638	99,591	101,583	765,862	
Total	48,782	45,000	45,000	45,900	46,818	47,754	92,007	93,847	95,724	97,638	99,591	101,583	765,862	859,644
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822710 Mathilda Avenue Railroad Overpass Improvements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2001-02	Phase:	Design	Project Manager:	Hira Raina
Planned Completion Year:	2006-07	% Complete:	5	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.1A	Fund:	385 Capital Projects
Sub-Element:	none	Neighborhood:	Downtown	Sub-Fund:	600 Gas Tax Funded

Project Description and Statement of Need

The existing bridge has been rated below standard by CalTrans. The project will provide widening and possible reconstruction of a portion of the bridge to improve traffic for Mathilda Avenue and Evelyn Avenue. This project is subject to 80% reimbursement from State/Federal funds. Funding has been granted for preliminary engineering and is anticipated for construction.

Service Level

This project will upgrade/replace the Mathilda Avenue Bridge over the CALTRAIN line. This structure has been rated by CALTRANS as obsolete due to existing conditions that do not meet current design standards. The project will correct these deficiencies and add a southbound to eastbound connection to Evelyn Avenue and the Downtown area. The project is funded by a Federal grant to pay for 80% of the total project costs.

Issues

Project revenues are reimbursed, based on actual costs incurred.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	768,681	16,731,319	0	0	0	0	0	0	0	0	0	0	0	17,500,000
Revenues														
ISTEA Grants		0	0	0	0	0	0	0	0	0	0	0	0	
Seismic Retrofit of Bridges		0	0	0	0	0	0	0	0	0	0	0	0	
Total	564,178	13,435,822	0	0	0	0	0	0	0	0	0	0	0	14,000,000
Transfers-In														
Gas Tax Fund		0	0	0	0	0	0	0	0	0	0	0	0	
Capital Project Fund--Traffic Mitigation		0	0	0	0	0	0	0	0	0	0	0	0	
Fund Reserves		0	0	0	0	0	0	0	0	0	0	0	0	
Total	204,503	3,295,497	0	0	0	0	0	0	0	0	0	0	0	3,500,000
Operating Costs	0	0	5,628	5,628	5,628	5,628	5,628	5,628	5,628	5,628	5,628	5,628	56,280	56,280

Project Information Sheet

Project: 825290 Pavement Rehabilitation

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.4	Fund:	610	Infrastructure Renov & Replace
Sub-Element:	2.5 Community Design	Neighborhood:	City Wide	Sub-Fund:	100	General Fund Assets

Project Description and Statement of Need

Every two years staff surveys street condition and as a result, plans are made to repair, overlay, or reconstruct the streets as needed. This project provides supplemental funding to the annual operating budget for overlay and reconstruction of streets in poor condition throughout the City. The annual operating budget provides a leveled funding rate of approximately $256,000 for ongoing pavement rehabilitation work. This project provides the additional funds needed in the years where more extensive rehabilitation work is required. The long term pavement rehabilitation schedule is maintained by the Department of Public Works Pavement Management staff.

The anticipated rehabilitation work for the 10 year plan are as follows: FY 2007/08 Remington (Sunnyvale/Saratoga to Michelangelo and El Camino Real to Michelangelo) and Susan (Knickerbocker to Bernardo); FY 2009/10 Wright (Fremont to Cascade); FY 2010/11 Ahwanee (Fair Oaks to San Tomas), Hendon (Backhawk to east end), Garland (west end to east end), Dunford (Quail to Teal); FY 2011/12 Homestead (Mary to Franco and Blue Jay to Blaney); FY 2012/13 Homestead (Wright to Mary), Moffet Park Court, San Angelo (Maude to south end), Marion (Wolfe to Ramon), Rosa (Poplar to west end), Hickorynut (Merrimac to south end), Cornwall (Mallard to south end); and FY 2013/14 Duane (west end to Pine), Cardigan (Fisherhawk to Flicker), Fife (Heron to Magpie), and Bryant (Poplar to Henderson).

Service Level

This project provides the streets maintenance throughout the City. The project protects the City's long-time investment in roads and maintains traffic safety.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	0	0	0	224,400	0	63,672	341,423	26,498	162,403	294,064	0	0	1,112,460	1,112,460
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	224,400	0	63,672	341,423	26,498	162,403	294,064	0	0	1,112,460	
Total	0	0	0	224,400	0	63,672	341,423	26,498	162,403	294,064	0	0	1,112,460	1,112,460
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825550 Adaptive Traffic Signal Control Upgrade

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Jack Witthaus
Planned Completion Year:	2005-06	% Complete:	0	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.1A	Fund:	610 Infrastructure Renov & Replace
Sub-Element:	2.1 Land Use and Transportation	Neighborhood:	City Wide	Sub-Fund:	100 General Fund Assets

Project Description and Statement of Need

On March 16, 1999, City Council authorized a joint project between the City and the County of Santa Clara to install an adaptive traffic signal coordination system at three county traffic signals and six City traffic signals along Lawrence Expressway (RTC 99-110). The total project cost was $500,000, funded by a $380,000 grant from the Metropolitan Transportation Commission, $60,000 contribution from the County of Santa Clara, and $60,000 contribution from the City of Sunnyvale.

Currently, three of the City's traffic signal controller cabinets have unexpectedly experienced catastrophic fires/failures, most likely due to equipment age, and are not capable of functioning and communicating with this new system. The three intersections need to have their controller cabinets changed for the system to function and the City and County to realize the actual benefit of the adaptive traffic signal control system. This project funds the replacement of these three controller cabinets located at Stewart/Duane, Arques/Santa Trinita, and Kifer/Costco. Each cabinet is expected to cost $50,000 to replace, at a total cost of $150,000 plus $25,000 for installation services.

Service Level

Travelers will realize a reduced level of service if these controllers are not replaced.

Issues

None

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	0	175,000	0	0	0	0	0	0	0	0	0	0	0	175,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Total	0	175,000	0	0	0	0	0	0	0	0	0	0	0	175,000
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825730 Pedestrian Lighted Crosswalk Maintenance

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Jack Witthaus
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dieckmann Cogill
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.C3.1	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

In FY 2003/2004, the City of Sunnyvale received $22,000 in grants from the State of California Business, Transportation and Housing Agency, Office of Traffic Safety (OTS) for a Pedestrian Lighted Crosswalk Project. This grant funded the purchase of a pedestrian activated in-pavement lighted crosswalk, which was constructed in the vicinity of Sunnyvale Middle School, Bishop School, the Town Center Mall and the Fair Oaks light rail station and recreational facility where there is a relatively high incidence of pedestrian/vehicle collisions. In FY 2004/2005, the City received an additional $83,100 in grant funding from the Bay Area Air Quality Management District, and contributed $$58,100 in Gas Tax monies for 3 more lighted crosswalks.

This project funds the replacement costs of the systems. The in-pavement lights from initial project are planned to be replaced in FY 2014/2015, assuming the streets are not overlayed/reconstructed. The control cabinets are planned to be replaced sometime after FY 2023/2024. Approximately $42,000 are budgeted in FY 2017/2018 for replacement of the 3 additional crosswalks.

Service Level

Installation of the pedestrian lighted crosswalk improves pedestrian safety.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	0	0	0	18,747	0	18,747	18,747
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	0	0	0	18,747	0	18,747	
Total	0	0	0	0	0	0	0	0	0	0	18,747	0	18,747	18,747
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825740 Battery Backup System for Traffic Signals Maintenance

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Jack Witthaus
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none

Element:	1 Land Use and Transportation	Goal:	1.1A	Fund: 610	Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund: 100	General Fund Assets

Project Description and Statement of Need

In FY 2003/2004, the City completed the installation of a battery backup system and LED retrofit at major arterials in the City. The total project cost was $611,010, completed in two phases, and funded by $338,800 of CA Energy Commission grant , $197,767 in Measure B monies, $27,500 of Transportation Fund for Clean Air grant, and $46,943 of Gas Tax monies.
Installation of Uninterruptable Power Supplies at traffic signals reduces congestion and improves safety for all users of the City's roadway system during planned and unplanned power outages. If PG&E power is lost, the traffic signals will continue to function in a normal fashion and motorists will not be required to treat dark signalized intersections as All-Way Stop controlled intersections.

This project funds the replacement costs of the battery backup system. The equipment manufacturer's documentation indicates the batteries will last approximately seven years. Battery replacement is scheduled over a four year period starting in FY 2010/2011. Unit cost of batteries is $1,200 and is based on current market pricing, adjusted for inflation. Thirty-two systems will be replaced in each of the four years. Electronic components for these devices typically last 15-20 years at a cost of $2,000-2,500 per location.

Service Level

This project provides the battery back up for the City's traffic signals to maintain operation of signals during power outages.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	41,565	42,397	43,245	44,110	0	0	171,317	171,317
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	41,565	42,397	43,245	44,110	0	0	171,317	
Total	0	0	0	0	0	0	41,565	42,397	43,245	44,110	0	0	171,317	171,317
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0